



The 750-498 I/O Module measures either voltages (mV) in the field or analyzes thermocouples.

Depending on the sensor selection for the respective I/O module, the voltage value is output directly or converted into the respective temperature value.

Based on the measured values supplied by the thermocouple and the cold junction temperature, the I/O module determines the corresponding temperature at the measurement point of the thermocouple used.

The I/O module has eight input channels, providing a direct connection from thermocouples to 2-wire sensors.

The field level and the system level are electrically isolated from one another.

Description	Item No.	Pack. Unit
8AI; TC; Adjust	750-498	1
Accessories		
Mini-WSB Quick Marking System, plain	248-501	50
Approvals		
Conformity marking	CE	
Ⓢ E175199 Ordinary Locations	UL 61010-2-201	
Technical Data		
Connection technology: inputs	Push-in CAGE CLAMP®	
Conductor cross-section	0.08 ... 1.5 mm ² / 28 ... 16 AWG	
Strip length	8 ... 9 mm / 0.33 inch	
Dimensions W x H x D	12 x 69 x 100 mm	
Weight	50 g	
EMC immunity to interference	per EN 61000-6-2; EN 61131-2	
EMC emission of interference	per EN 61000-6-3; EN 61131-2	

Technical Data	
Number of analog inputs	8
Supply voltage (system)	5 VDC; via data contacts
Power consumption (system supply)	100 mA
Signal type	Temperature and voltages
Signal characteristic	Single-ended
Sensor types	Type K, J, B, E, N, R, S, T, C;
	Voltage measurement: ±30 mV; ±60 mV; ±120 mV; ±240 mV
Sensor connection	2-wire
Input resistance	≥ 10MΩ
Resolution	0.1 °C for temperature measurements; 0.01 mV at ±240 mV; 0.005 mV at ±120 mV; 0.0025 mV at ±60 mV; 0.00125 mV at ±30 mV
Conversion time	≤100 ms (per channel), activated notch filter; ≤50 ms (per channel), deactivated notch filter
Measurement error at 25 °C and in nominal mounting position	with cold junction compensation: ≤ ±1 K (type E, N, K, T, J) at ≥-50 °C; ≤ ±2 K (type S, R, C) at ≥100 °C; ≤ ±3 K (type B) at ≥350 °C; (Please find additional measurement error information in the manual.)
Temperature error (max.)	Type K: ±0.05 K/K of the upper-range value; Voltage measurements: ±50 ppm/K of the upper-range value
Cold junction compensation	Module-internal based on a cold junction temperature measurement
Isolation	500 V system/field
Data width	8 x 16-bit data; 8 x 8-bit control/status (optional)